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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,143	09/04/2003	Beverly A. Rzigalinski	UCF-375	6531

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EXAMINER	
CARTER, KENDRA D	
ART UNIT	PAPER NUMBER
1617	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
31 DAYS	01/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/655,143	RZIGALINSKI ET AL.	
	Examiner	Art Unit	
	Kendra D. Carter	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 September 2003*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-22* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claim 1, is drawn to nonagglomerated, ultra fine, engineered Cerium Oxide nonoparticles of the size approximately 2 to approximately 10 nm with high biological activity, classified in class 424, subclass 608 for example.

II. Claim 2, is drawn to a method for enhancing the longevity of living cells comprising: adding nonagglomerated, ultra fine, engineered nanoparticles of Cerium Oxide to cultures of living cells, classified in class 514, subclass 769 for example.

III. Claims 3 and 4, are drawn to a method for promoting wound healing comprising: introducing implants or surgical dressings coated with an effective amount of nonagglomerated, ultrafine, engineered Cerium Oxide nanoparticles to injured tissue of a patient, classified in class 514, subclass 829, and 858-865 for example.

IV. Claims 5, 6, 11, and 12, are drawn to method for treating arthritis and joint diseases comprising; introducing a medically effective joint replacement

coated with a medically effective amount of nonagglomerated, engineered, ulatrafine Cerium Oxide nanoparticles into the body of a patient suffering from said diseases, classified in class 514, subclass 825 for example.

V. Claims 7, 8, 11 and 12, are drawn to a method of treating vascular diseases comprising the steps of: coating replacement vascular grafts with nonagglomerated, ultrafine, engineered nanoparticles of Cerium Oxide; and introducing an effective amount of said graft into a patient requiring such grafts, classified in class 514, subclass 929 and 930 for example.

VI. Claims 9 and 10, are drawn to an anti-aging treatment, comprising the steps of: administering an effective amount of nonagglomerated, ultrafine, engineered nanoparticles of Cerium Oxide to a person desirous of such treatment, classified in class 514, subclass 878 for example.

VII. Claims 13 and 14, are drawn to method for treating inflammation comprising the steps of: administering to a patient in need of an anti-inflammatory, an effective amount of nonagglomerated, ultrafine, engineered nanoparticles of Cerium Oxide, classified in class 514, subclass 886 for example.

VIII. Claim 15, is drawn to a composition comprising nonagglomerated, ultrafine, engineered nanoparticles of Cerium Oxide, classified in class 424, subclass 608 for example.

IX. Claims 16-21, are drawn to a method for preparing nonagglomerated, ultrafine, engineered nanoparticles of Cerium Oxide with high biological activity comprising: a sol microemulsion reverse micelle process, classified in class 514, subclass 769 for example.

X. Claim 22, is drawn to surgical implants or dressings coated with an effective amount of nonagglomerated, ultrafine, engineered nanoparticles of Cerium Oxide, classified in class 600, subclass 3, 7, 30, and 40 and class 427, subclass 530 for example.

The inventions are distinct, each from the other because of the following reasons:

Inventions of Group I and Group II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the nonagglomerated, ultrafine, engineered Cerium Oxide nanoparticles of Group I can be

used to treat arthritis, conversely proper diet can enhance the longevity of living cells of Group II.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper. Group I and II are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups I and II have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group I and Group III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the nonagglomerated, ultrafine, engineered Cerium Oxide nanoparticles of Group I can be used to treat arthritis, conversely zinc oxide can promote wound healing of Group III.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group III, restriction for examination purposes as indicated is proper. Group I and III are not identically classified under the

U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups I and III have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group I and Group IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the nonagglomerated, ultrafine, engineered Cerium Oxide nanoparticles of Group I can be used to treat wound healing, conversely a COX-2 inhibitor can be used to treat arthritis and joint diseases of Group IV.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group IV, restriction for examination purposes as indicated is proper. Group I and IV are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups I and IV have been appropriately restricted on the basis of being both

independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group I and Group V are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the nonagglomerated, ultrafine, engineered Cerium Oxide nanoparticles of Group I can be used to treat arthritis, conversely anti-ischemic drugs can treat vascular diseases of Group V.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group V, restriction for examination purposes as indicated is proper. Group I and V are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups I and V have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group I and Group VI are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the nonagglomerated, ultrafine, engineered Cerium Oxide nanoparticles of Group I can be used to treat arthritis, conversely human growth hormones can treat anti-aging of Group VI.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group VI, restriction for examination purposes as indicated is proper. Group I and VI are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups I and VI have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group I and Group VII are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another

materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the nonagglomerated, ultrafine, engineered Cerium Oxide nanoparticles of Group I can be used to treat anti-aging, conversely nitric oxide can treat inflammation of Group VII.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group VII, restriction for examination purposes as indicated is proper. Group I and VII are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups I and VII have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group I and Group VIII are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the nonagglomerated, ultrafine, engineered Cerium Oxide nanoparticles of Group I can be used to treat arthritis, conversely the composition of Group VIII can also comprise an anti-aging therapeutic drug, which is not required for Group I.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group VIII, restriction for examination purposes as indicated is proper. Group I and VIII are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups I and VIII have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group I and Group IX are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case nanometer-sized iron, nickel, or copper compounds can be formed from the process of Group IX.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group IX, restriction for examination purposes as indicated is proper. Group I and IX are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together.

Thus Groups I and IX have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group I and Group X are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the nonagglomerated, ultrafine, engineered Cerium Oxide nanoparticles of Group I can be used in an ointment, conversely surgical implants or dressings can be coated with anti-inflammatory therapeutic drugs.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group X, restriction for examination purposes as indicated is proper. Group I and X are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups I and X have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group II and Groups III - VII are directed to unrelated methods. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the inventions as claimed are unrelated because the method of Group II is *in vitro* (i.e. to cultures of living cells) whereas the method of Group III is *in vivo* (i.e. applied to a patient), and thus have a different mode of operation.

Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Groups III - VII, restriction for examination purposes as indicated is proper. Group II and Groups III - VII are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups II and Groups III - VII have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group II and Group VIII are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the

composition of Group VIII can comprise an arthritis therapeutic drug, which is not required for the method of Group II.

Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group VIII, restriction for examination purposes as indicated is proper. Group II and VIII are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups II and VIII have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group II and Group IX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions are unrelated because the process of Group IX can be used for a method of catalyzing coal conversion instead of the method of Group II, which is to enhance the longevity of living cells.

Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group IX, restriction for examination purposes as indicated is proper. Group II and IX are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a

search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups II and IX have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group II and Group X are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the surgical implants or dressings of Group X can be used to treat arthritis, conversely the method of Group II can comprise a proper diet for the living cells to enhance the longevity of living cells.

Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group X, restriction for examination purposes as indicated is proper. Group II and X are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups II and X have been appropriately restricted on the basis of being both

independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group III and Group IV are directed to unrelated methods. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the inventions as claimed are unrelated because the method of Group III is promoting wound healing to an injured tissue of a patient whereas the method of Group IV is directed to a method of treating arthritis and joint diseases. The method of Group III is broad and can occur by a knife cut, blunt force trauma, burn etc., which can virtually be on any surface of the body such as muscle, bone, or skin. The method of Group IV is more specific where the treatment is in the bone or joint of the body and thus has a much more specific mode of action. In addition, a wound does not have to occur for the treatment of arthritis and joint diseases.

Because these inventions are distinct for the reasons given above and the search required for Group III is not required for Group IV, restriction for examination purposes as indicated is proper. Group III and Group IV are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups III and Group IV have been appropriately restricted on the basis

of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group III and Group V are directed to unrelated methods. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the inventions as claimed are unrelated because the method of Group III is promoting wound healing to an injured tissue of a patient whereas the method of Group V is directed to a method of treating vascular diseases. The method of Group III is broad and can occur by a knife cut, blunt force trauma, burn etc., which can virtually be on any surface of the body such as muscle, bone, or skin. The method of Group V is more specific where the treatment is related to blood and thus has a much more specific mode of action. In addition, a wound does not have to occur for the treatment of vascular diseases.

Because these inventions are distinct for the reasons given above and the search required for Group III is not required for Group V, restriction for examination purposes as indicated is proper. Group III and Group V are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups III and Group V have been appropriately restricted on the basis

of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group III and Group VI are directed to unrelated methods. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the inventions as claimed are unrelated because the method of Group III is promoting wound healing to an injured tissue of a patient whereas the method of Group VI is directed to a method of treating anti-aging. The method of Group III is broad and can occur by a knife cut, blunt force trauma, burn etc., which can virtually be on any surface of the body such as muscle, bone, or skin. The method of Group VI is also broad and can apply to any surface of the body, but no wound needs to occur to treat anti-aging. Thus, the treatments have different designs and modes of operation.

Because these inventions are distinct for the reasons given above and the search required for Group III is not required for Group VI, restriction for examination purposes as indicated is proper. Group III and Group VI are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups III and Group VI have been appropriately restricted on the basis

of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group III and Group VII are directed to unrelated methods. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the inventions as claimed are unrelated because the method of Group III is promoting wound healing to an injured tissue of a patient whereas the method of Group VII is directed to a method of treating inflammation. The method of Group III is broad and can occur by a knife cut, blunt force trauma, burn etc., which can virtually be on any surface of the body such as muscle, bone, or skin. The method of Group VII has a different effect and mode of action because the inflammation does not have to occur as a result of a wound. The inflammation can occur through infection.

Because these inventions are distinct for the reasons given above and the search required for Group III is not required for Group VII, restriction for examination purposes as indicated is proper. Group III and Group VII are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups III and Group VII have been appropriately restricted on the basis

of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group III and Group VIII are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the composition of Group VIII can comprise an arthritis therapeutic drug, which is not required for the method of Group III.

Because these inventions are distinct for the reasons given above and the search required for Group III is not required for Group VIII, restriction for examination purposes as indicated is proper. Group III and VIII are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups III and VIII have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group III and Group IX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have

different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions are unrelated because the process of Group IX can be used for a method of catalyzing coal conversion instead of the method of Group III, which is to promote wound healing.

Because these inventions are distinct for the reasons given above and the search required for Group III is not required for Group IX, restriction for examination purposes as indicated is proper. Group III and IX are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups III and IX have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group III and Group X are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the surgical implants or dressings of Group X can be used to treat arthritis, conversely the method of Group III can be applied by a topical cream.

Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group X, restriction for examination purposes as indicated is proper. Group III and X are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups III and X have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group IV and Group V are directed to unrelated methods. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the inventions as claimed are unrelated because the method of Group IV is treating arthritis and joint diseases whereas the method of Group V is directed to a method of treating vascular diseases. The method of Group IV is directing treatment to the joints and bone, whereas the method of Group V is directing to a treatment of diseases associated with the blood vessels. Thus, the site of action is different and therefore the mode of action would be different also.

Because these inventions are distinct for the reasons given above and the search required for Group IV is not required for Group V, restriction for examination

purposes as indicated is proper. Group IV and Group V are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups IV and Group V have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group IV and Group VI are directed to unrelated methods. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the inventions as claimed are unrelated because the method of Group IV is treating arthritis and joint diseases whereas the method of Group VI is directed to a method of treating anti-aging. The method of Group IV is directing specific treatment to the joints whereas the method of Group VI is broad and can apply to any surface of the body, but is focused on the aging of tissue. Thus, the treatments have different designs and modes of operation.

Because these inventions are distinct for the reasons given above and the search required for Group IV is not required for Group VI, restriction for examination purposes as indicated is proper. Group IV and Group VI are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent

literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups IV and Group VI have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group IV and Group VII are directed to unrelated methods. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the inventions as claimed are unrelated because the method of Group IV treating arthritis and joint diseases whereas the method of Group VII is directed to a method of treating inflammation. Although there is inflammation associated with arthritis and joint diseases, it is a response to the deterioration of the joint, which is the main cause of arthritis and joint diseases. Thus, Group IV and VIII treat different functions.

Because these inventions are distinct for the reasons given above and the search required for Group IV is not required for Group VII, restriction for examination purposes as indicated is proper. Group IV and Group VII are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups IV and Group VII have been appropriately restricted on the

basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group IV and Group VIII are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the composition of Group VIII can comprise a vascular disease therapeutic drug, which is not required for the method of Group IV.

Because these inventions are distinct for the reasons given above and the search required for Group IV is not required for Group VIII, restriction for examination purposes as indicated is proper. Group IV and VIII are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups IV and VIII have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group IV and Group IX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have

different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions are unrelated because the process of Group IX can be used to make nanometer-sized iron, nickel, or copper compounds that are used for a method of catalyzing coal conversion instead of the method of Group IV, which is to treat arthritis and joint diseases.

Because these inventions are distinct for the reasons given above and the search required for Group IV is not required for Group IX, restriction for examination purposes as indicated is proper. Group IV and IX are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups IV and IX have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group IV and Group X are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the surgical implants or dressings of Group X can be used to treat vascular diseases

conversely the method of Group IV can comprise COX-2 inhibitors to treat arthritis and joint diseases or be administered orally.

Because these inventions are distinct for the reasons given above and the search required for Group IV is not required for Group X, restriction for examination purposes as indicated is proper. Group IV and X are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups IV and X have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group V and Group VI are directed to unrelated methods. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the inventions as claimed are unrelated because the method of Group V is directed to a method of treating vascular diseases whereas the method of Group VI is drawn to an anti-aging treatment. The method of Group V is more specific where the treatment is related to blood and thus has a specific mode of action. Group VI is broad and can apply to any surface of the body, but is focused on aging of tissue. For example, Group VI can be as broad as treating

wrinkles on the patient, which has a completely different mode of action than Group V. Thus, the treatments have different designs and modes of operation.

Because these inventions are distinct for the reasons given above and the search required for Group V is not required for Group VI, restriction for examination purposes as indicated is proper. Group V and Group VI are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups V and Group VI have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group V and Group VII are directed to unrelated methods. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the inventions as claimed are unrelated because the method of Group V is directed to a method of treating vascular diseases whereas the method of Group VII is directed to a method of treating inflammation. The method of Group V is specific where the treatment is related to blood and thus has a specific mode of action. The method of Group VII is related to the

treatment of inflammation, which does not have to occur through a vascular disease. For example, inflammation can occur by infection, which has a different mode of action.

Because these inventions are distinct for the reasons given above and the search required for Group V is not required for Group VII, restriction for examination purposes as indicated is proper. Group V and Group VII are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups V and Group VII have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group V and Group VIII are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the composition of Group VIII can comprise an arthritis therapeutic drug, which is not required for the method of Group V.

Because these inventions are distinct for the reasons given above and the search required for Group V is not required for Group VIII, restriction for examination purposes as indicated is proper. Group V and VIII are not identically classified under

the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups V and VIII have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group V and Group IX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions are unrelated because the process of Group IX can be used to make nanometer-sized iron, nickel, or copper compounds that are used for a method of catalyzing coal conversion instead of the method of Group V, which is to treating vascular diseases.

Because these inventions are distinct for the reasons given above and the search required for Group V is not required for Group IX, restriction for examination purposes as indicated is proper. Group V and IX are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups V and IX have been appropriately restricted on the basis of being both

independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group V and Group X are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the surgical implants or dressings of Group X can be used to treat arthritis, conversely the method of Group V can comprise a vasodilator to treat the vascular disease and be administered orally.

Because these inventions are distinct for the reasons given above and the search required for Group V is not required for Group X, restriction for examination purposes as indicated is proper. Group V and X are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups V and X have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group VI and Group VII are directed to unrelated methods. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the inventions as claimed are unrelated because the method of Group VI is directed to An anti-aging treatment whereas the method of Group VII is directed to a method of treating inflammation. The method of Group VI is broad and can apply to any surface of the body, but is focused on aging of tissue. For example, Group VI can be as broad as treating wrinkles on the patient, which has a completely different mode of action than Group VII. Thus, the treatments have different designs and modes of operation.

Because these inventions are distinct for the reasons given above and the search required for Group VI is not required for Group VII, restriction for examination purposes as indicated is proper. Group VI and Group VII are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups VI and Group VII have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group VI and Group VIII are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be

shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the composition of Group VIII can comprise an arthritis therapeutic drug, which is not required for the method of Group VI.

Because these inventions are distinct for the reasons given above and the search required for Group VI is not required for Group VIII, restriction for examination purposes as indicated is proper. Group VI and VIII are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups VI and VIII have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group VI and Group IX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions are unrelated because the process of Group IX can be used to make nanometer-sized iron, nickel, or copper compounds that are used for a method of catalyzing coal conversion instead of the method of Group VI, which is an anti-aging treatment.

Because these inventions are distinct for the reasons given above and the search required for Group VI is not required for Group IX, restriction for examination purposes as indicated is proper. Group VI and IX are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups VI and IX have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group VI and Group X are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the surgical implants or dressings of Group X can be used to treat arthritis, conversely the method of Group VI can comprise a skin tightening agent to give the appearance and feeling of younger skin and be administered by a topical cream.

Because these inventions are distinct for the reasons given above and the search required for Group VI is not required for Group X, restriction for examination purposes as indicated is proper. Group VI and X are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a

search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups VI and X have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group VII and Group VIII are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the composition of Group VIII can comprise an arthritis therapeutic drug, which is not required for the method of Group VII.

Because these inventions are distinct for the reasons given above and the search required for Group VII is not required for Group VIII, restriction for examination purposes as indicated is proper. Group VII and VIII are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups VII and VIII have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group VII and Group IX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions are unrelated because the process of Group IX can be used to make nanometer-sized iron, nickel, or copper compounds that are used for a method of catalyzing coal conversion instead of the method of Group VII, which is a method to treat inflammation.

Because these inventions are distinct for the reasons given above and the search required for Group VII is not required for Group IX, restriction for examination purposes as indicated is proper. Group VII and IX are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups VII and IX have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group VII and Group X are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially

different process of using that product. See MPEP § 806.05(h). In the instant case, the surgical implants or dressings of Group X can be used to treat arthritis, conversely the method of Group VII can comprise a COX-2 inhibitor to treat the inflammation and be administered orally.

Because these inventions are distinct for the reasons given above and the search required for Group VII is not required for Group X, restriction for examination purposes as indicated is proper. Group VII and X are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups VII and X have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group VIII and Group IX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions are unrelated because the process of). In the instant case, the composition of Group VIII can comprise an arthritis therapeutic drug, which is not required for the method of Group IX.

Because these inventions are distinct for the reasons given above and the search required for Group VIII is not required for Group IX, restriction for examination

purposes as indicated is proper. Group VIII and IX are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups VIII and IX have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group VIII and Group X are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the surgical implants or dressings of Group X can be used with an antibacterial composition, conversely the composition of Group VIII can be administered by injection.

Because these inventions are distinct for the reasons given above and the search required for Group VIII is not required for Group X, restriction for examination purposes as indicated is proper. Group VIII and X are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups VIII and X have been appropriately restricted on the basis of being both

independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

Inventions of Group IX and Group X are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h).). In the instant case, the different inventions are unrelated because the process of Group IX can be used to make nanometer-sized iron, nickel, or copper compounds that are used for a method of catalyzing coal conversion instead of being used as coating on surgical implants or dressings of Group IX.

Because these inventions are distinct for the reasons given above and the search required for Group IX is not required for Group X, restriction for examination purposes as indicated is proper. Group IX and X are not identically classified under the U.S. Patent Classification guidelines, thus to search them together would present a search burden on the Examiner. Moreover, the searches in non-patent literature databases will be extensive thus presenting a search burden to be searched together. Thus Groups IX and X have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder**. Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Applicant is advised that in order for the reply to this requirement to be complete it must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.141).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Because the above election restriction and specie election requirement is complex, a telephone call to the applicant's agent to request an oral election was not made. See M.P.E.P. Sec 812.01.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kendra D. Carter whose telephone number is (571) 272-9034. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on (571) 272-0629. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KDC

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